



## Technical Data Sheet

### Stretch Effects

*Quantum Silicones' 22 Durometer Addition Cure  
Translucent Moldmaking Material*

#### **Product Description**

Quantum Silicones' Stretch Effects is a two component, room temperature addition cure silicone material. The cured rubber has excellent mechanical properties and good shelf-life stability. This material is a good choice for moldmaking of intricate patterns, skin molding, and applications where a low durometer translucent material is required.

#### **Key Features**

- Low Viscosity
- Elongation >1200%
- Fast demold time
- Excellent flexibility
- Clear, pigmentable

#### **Main Applications**

- Special effects
- Skin replication
- Applications where pigmentation is required

#### **Typical Properties**

<b>UNCATALYZED PROPERTIES</b>	
Mix Ratio	10:1 by weight
<b>BASE</b>	
Base Appearance	Translucent
Base Viscosity, cps	25,000
Base Specific Gravity, g/cm <sup>2</sup>	1.12
<b>CATALYST</b>	
Catalyst Appearance	Translucent
Catalyst Viscosity, cps	2,000
Catalyst Specific Gravity, g/cm <sup>2</sup>	0.98

## **Typical Properties Continued**

<b>CATALYZED PROPERTIES-STRETCH EFFECTS</b>	
<b>PROPERTY</b>	<b>STETCH EFFECTS</b>
Catalyzed Color	Translucent
Catalyzed Viscosity, cps	20,000
Pot Life <sup>(1)</sup> (minutes)	90 minutes
Demold Time(hours)	8 to 12 hours

<b>TYPICAL CURED PROPERTIES</b>	
Durometer, Shore A	22
Tensile Strength, psi	>400
Elongation, %	>1200
Tear B, ppi	>100
Linear Shrinkage, inches	<0.1
Useful Temperature Range	-60C to 204C

(1)Pot Life is defined as the time at which the catalyzed material gels.

## **Cure Characteristics**

The curing process begins as soon as the catalyst is mixed with the base. Under normal temperature (25C) and humidity (50% RH) conditions, the material will cure as described in the data above. Because this system is sensitive to heat and humidity, a change in cure speed may be seen if one or both of these variables are altered. Any large difference in temperature (+/-5C) or humidity (>60-70%) may change the cure profile of the material. In addition, if the product is to be used with aggressive resins such as high styrene polyester resins, it is recommended that the rubber be allowed to cure for 48 hours. For best results, Stretch Effects "A" and Stretch Effects "B" components of the **same lot number** should be used.

## **Mixing and De-aeration**

The following procedure should be followed for obtaining optimal performance from Stretch Effects.

Charge 100 parts, **by weight**, of Stretch Effects "A" and 10 parts, **by weight**, of Stretch Effects "B" into a clean, compatible metal or plastic container. Shake the catalyst well before use. The volume of the container should be 3-4 times the volume of the material to be mixed. This allows for expansion of the siloxane material as it de-gasses.

Mix thoroughly by hand or with mixing equipment while minimizing air entrapment until a homogeneous mixture is obtained. This will occur when the material takes on a uniform color with no visible striations. Once mixing \* is complete it is recommended that the material be de-aired 2-3 times by intermittent evacuation for a few minutes to minimize any imperfections due to bubbles in the cured material. Typically after releasing the vacuum 2-3 times the mass will collapse on itself at which time the vacuum should be left on only 2-4 minutes longer.

\* Machine mixed material does not normally need to be de-aired.

### **Shelf-life and Storage**

Stretch Effects “A” and “B” components should be stored in their original, sealed containers in an environment that does not exceed 90F. Under these conditions the expected shelf-life of the material is 12 months.

### **Not for Product Specification**

The technical data listed herein is provided as a reference only and **is not** intended as sales specifications. For sales and technical assistance or for product recommendations, please call 1-866-303-LEAP.

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